SYNTHETIC MINOR OPERATING PERMIT
EVALUATION REPORT
NORTHRUP GRUMMAN SYSTEMS CORPORATION
PLANT NUMBER B0861
APPLICATION NUMBER 23509

BACKGROUND

Northrup Grumman Systems Corporation (Northrup Grumman) has made application for an amendment to its current Synthetic Minor Operating Permit under the provisions of Regulation 2, Rule 6-230 for its manufacturing facility located at in Sunnyvale, California. This site requires limitations on its permit conditions to ensure that the facility does not emit more than 100,000 tons per year of greenhouse gases on a CO2 equivalent basis, and thereby trigger classification of the site as a Major Facility under the provisions of Regulation 2, Rule 6.

SOURCES COVERED BY SYNTHETIC MINOR OPERATING PERMIT

The permitted sources and abatement devices covered by this synthetic minor operating permit are as follows:

PERMITTED SOURCES

S5, Wickes Boiler, (41-19), 124 MMBtu/hr, max
S6, Infra Red Oven, Fostoria C4-65J (electric)
S8, Paint Spray Booth, Binks PFA
S9, Paint Spray Booth and Cure Booth
S10, Paint Spray Booth, Binks
S11, Paint Spray Booth, Binks NPB 10-10
S12, Paint Spray Booth, DeVilbiss
S13, Paint Spray Booth, DeVilbiss
S19-S21, Parts Washers, Graymills Model 300
S25, Paint Spray Booth, Newcomb-McDonald
S29, Paint Bake Oven, Ross Air System, 1.25 MM Btu/hr max
S31, Shot Blast Booth (21-1)
S33, Down Draft Spray Booth, Binks
S34, Sand Blast Operation, Binks #1984
S37, Air Stripping Column
S41, Paint Booth, DeVilbiss Model #DR-X-1610-150
S56, Steam Generator, 410 MM Btu/hr, max
S57, Shot Blast Room
S59, Plastic Media Blast Facility, Aerolyte Model SC-2462
S61, Abrasive Blast Booth
S62, Composite Sanding Booth
S63, Rust Preventative Spray Booth

S106, Wipe Cleaning Operation, Building 11
S107, Wipe Cleaning Operation, Building 16
S108, Wipe Cleaning Operation, Building 21
S109, Wipe Cleaning Operation, Building 31
S111, Wipe Cleaning Operation, Building 33
S112, Wipe Cleaning Operation, Building 41
S113, Wipe Cleaning Operation, Building 44
S114, Wipe Cleaning Operation, Building 55
S115, Wipe Cleaning Operation, Building 61
S116, Wipe Cleaning Operation, Building 81
S118, Wipe Cleaning Operation, Building 134
S131, Heat Treat Oven, 14.4 MMBtu/hr, Bldg. 61
S132, Diesel Generator, 250 kW
S134, Automatic Blast Booth, Bldg 162
S135, Wipe Cleaning Operation, Bldg 123, 124, 162, 163,165
S136, Adhesive Coating Operations (Facility-Wide)
S138, Feedwater Heater, 12.3 MM BTU/hr
S139, Feedwater Heater, 12.3 MM BTU/hr
S152, Emergency Standby Generator
S153, Fire Pump Driver Engine
S155, Urethane Casting Machine
S156, Urethane Casting Machine
S157, Fire Pump Driver Engine
S158, Vapor Degreaser
S159, Emergency Generator
S160, Dry Filter Spray Booth
S161, Paint Spray Booth with Dry Filter Bank

ABATEMENT DEVICES

A1, Diesel Particulate Filter
A18, Baghouse for S18
A32, Baghouse for S31
A34, Baghouse for S34
A56, SCR System for S56
A61, Dust Collector for S61
A124, Baghouse for S57
A125, Dust Collector for S59
A126, Ammonia Gas Scrubber for S124
A132, Level 3 Catalyzed Diesel Particulate Filter
A134, Dust Collector for S134
A135, Carbon Adsorption System for S9
A137, Dust Collector for S137
A158, Carbon Adsorption System for S158

In addition, the facility has the following unpermitted sources:

S122, Groundwater Treatment System (Reg 1-110.6)
S123, Fixed Roof Storage Tank (Reg 2-1-123.2)
S124, Ammonia Storage Tank (Reg 2-1-123.3.1)
S128, Superheater, 9.8 MMBtu/hr max, Twyman Model 2113-1 (Reg 2-1-114.2)
S129, Superheater, 7 MMBtu/hr max, Twyman Model 21182 (Reg 2-1-114.2)
S141, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S142, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S143, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S144, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S145, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S146, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S147, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S148, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S149, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S150, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S151, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S154, Steam Boiler (Pickling Process), 5.25 MM BTU/hr (Reg 2-1-114.2)
4 Clayton Boilers, 7.3 MMBtu/hr each, Model RG-175-2, Bldg 41, (Reg 2-1-114.2)

EMISSIONS LIMITATIONS AT NORTHRUP GRUMMAN SYSTEMS CORPORATION

In order to be eligible for a synthetic minor permit, a site must either have a maximum potential to emit that is less than each Title V emission threshold (less than 95 tons/year of NO_x, CO, POC, PM_{10}, and SO_2, less than 9 tons/year of any single hazardous air pollutant (HAP), and less than 23 tons/year of all HAPs combined) or must accept conditions limiting the site to less than these emissions thresholds. At currently permitted operational levels, Northrup Grumman does not have the potential to exceed the above emissions limitations.

EPA has recently adopted Title V permitting thresholds for greenhouse gas (GHG) emissions that will become effective for all sites on July 1, 2011. Any site that has the potential to emit more than 100,000 tons/year of greenhouse gases (expressed as CO_2 equivalent tons/year and including biogenic CO_2) will be required to obtain a Title V permit. Based on current emissions calculations, this site has the potential to emit more than 100,000 tpy of CO2e, and therefore would be subject to Title V unless it adopts federally enforceable limitations on its combustion sources limiting operations to less than 90,000 tons/year of CO2e. Northrup Grumman has requested that its Synthetic Minor permit be amended to limit operations in a manner that ensures that the facility's CO2e emissions meet the Title V limitations. This will be done by limiting operating hours and criteria pollutant emissions at its combustion sources.

GREENHOUSE GASES EMISSION CALCULATIONS

All of the sources from this facility which produce CO2e emissions are combustion sources fueled by either natural gas or by diesel fuel. The facility is willing to accept facility-wide throughput limitations which will ensure that the total CO2e emissions are less than 90,000 tons per year.

Greenhouse gases (GHGs) from the facility are expressed as tons per carbon dioxide equivalent (CO_2e). The components of GHGs are carbon dioxide, methane, and nitrous oxide. Methane and nitrous oxide contributions are multiplied by weighting factors of 21 and 310 respectively.

Using EPA's default emission factors for combustion sources (from Tables C-1 and C-2 of 40 CFR Part 98, Subpart C), the following GHG emission factors (expressed as total CO2 equivalent emissions) are derived below for natural gas and diesel oil fired combustion equipment:

Gas-fired Sources:

53.02 kg CO2/MM BTU	*	2.2046 lbs/kg	=	116.889 lbs CO2/MM BTU
1.0E-3 kg CH4/MM BTU	*	2.2046 lbs/kg	=	2.205E-3 lbs CH4/MM BTU
1.0E-4 kg N2O/MM BTU	*	2.2046 lbs/kg	=	2.205E-4 lbs N2O/MM BTU

Total GHG = 116.889 + 2.205E-3*21 + 2.205E-4*310 = 117.004 lbs CO_2e/MM BTU

Diesel-fueled Sources:

73.96 kg CO2/MM BTU	*	2.2046 lbs/kg	=	163.054 lbs CO2/MM BTU
3.0E-3 kg CH4/MM BTU	*	2.2046 lbs/kg	=	6.614E-3 lbs CH4/MM BTU
6.0E-4 kg N2O/MM BTU	*	2.2046 lbs/kg	=	1.323E-3 lbs N2O/MM BTU

Total GHG = 163.054 + 6.614E-3*21 + 1.323E-3*310 = 163.603 lbs CO_2e/MM BTU

GHG (lbs/gal) = 163.603 lb/MM BTU * 0.138 MM BTU/gal = 22.577 lbs CO_2e/gallon

Northrup Grumman has agreed to accept a facility-wide natural gas limitation of 1,450 MM SCF/year, and a facility-wide diesel fuel limitation of 220,000 gallons per year. With these limitations, the GHG facility-wide potential to emit (PTE), expressed as total CO2 equivalent emissions, will be: 89,686 tons/year of CO2e.

Facility-Wide GHG Potential to Emit (PTE)

LIMIT DESCRIPTION	MAX CONDITION THROUGHPUT	UNITS	MAX CONDITION HEAT INPUT *	Total CO2e Emission Factor	Total CO2e Emissions
			MM BTU/year	lbs/MM BTU	Tons/Year
Facility-Wide Natural Gas Usage	1,450	MM SCF/Year	1,490,600	117.004	87,203
Facility-Wide Diesel Fuel Usage	220,000	Gallons/Year	30,360	163.603	2,483
Total GHG Emissions					89,686

* Based on the EPA default emission factor data, the heat contents used for these conversions are: 1028 BTU/scf and 138,000 BTU/gallon.

With these permit limitations, Northrup Grumman's Potential to Emit for greenhouse gases will be less than 90,000 tons per year, and the facility will be compliant with all current Synthetic Minor Operation Condition requirements.

EXISTING PERMIT CONDITIONS

The following is the current Synthetic Minor permit condition covering all operations at the Northrup Grumman:

COND# 14049 ----------

--- SYNTHETIC MINOR OPERATING PERMIT ---
Application 15375 (January 2007) S-160 Dry Filter Spray
Booth replacing S-24 Paint Water Wash Spray Booth.

Northrop Grumman Corporation
401 East Hendy Avenue
Sunnyvale, CA 94088
Plant #10861
Applications 13820, 19630, 18907, 19631, 1477, 2446, 19462, 4005, 4390, 4962, 7268, 8683, 9221, 12064, 14969, and 15375

Parts 1 - 28 establish the federally enforceable permit terms that ensure this plant is classified as a Synthetic Minor Facility under District Regulation 2, Rule 6 – Major Facility Review and ensure it is not subject to the permitting requirements of Title V of the Federal Clean Air Act as amended in 1990 and 40 CFR Part 70. Any revision to a condition establishing this plant's status as a Synthetic Minor Facility or any new permit term that would limit emissions of a new or modified source for the purpose of maintaining the facility as a Synthetic Minor must Undergo the procedures specified by Regulation 2, Rule 6, Section 423.

Parts *29 - *85 are District conditions that do not establish this facility as a Synthetic Minor. Each of these conditions is marked by an asterisk. The facility must comply with all conditions, regardless of asterisks, and must comply with all District requirements for new and modified sources regardless of its status as a Synthetic Minor.

This operating permit covers all sources existing at the facility as of permit issuance. The sources are listed below:

Permitted Sources:

S8	Paint Spray Booth, Binks PFA
S9	Paint Spray Booth and Cure Booth
S10	Paint Spray Booth, Binks
S11	Paint Spray Booth, Binks NPB 10-10
S12	Paint Spray Booth, DeVilbiss
S13	Paint Spray Booth, DeVilbiss
S15	Cure Room (electric)
S16	Automatic Painting Booth
S17	Hand Paint Booth
S18	Shot Blast
S19-S21	Parts Washers, Graymills Model 30 S25 Paint Spray Booth, Newcomb-McDonald
S29	Paint Bake Oven, Ross Air System, 1.25 MM Btu/hr max
S31	Shot Blast Booth (21-1)
S33	Down Draft Spray Booth, Binks
S34	Sand Blast Operation, Binks #1984
S35	Gasoline Dispensing Island
S37	Air Stripping Column
S41	Paint Booth, AFC Finishing Systems EIBF3212
S56	Steam Generator, 410 MM Btu/hr, max
S57	Shot Blast Room
S59	Plastic Media Blast Facility, Aerolyte Model SC-2462
S61	Abrasive Blast Booth
S62	Composite Sanding Booth
S63	Rust Preventative Spray Booth
S106	Wipe Cleaning Operation, Building 11
S107	Wipe Cleaning Operation, Building 16
S108	Wipe Cleaning Operation, Building 21
S109	Wipe Cleaning Operation, Building 31
S110	Wipe Cleaning Operation, Building 32
S111	Wipe Cleaning Operation, Building 33
S112	Wipe Cleaning Operation, Building 41
S113	Wipe Cleaning Operation, Building 44
S114	Wipe Cleaning Operation, Building 55
S115	Wipe Cleaning Operation, Building 61
S116	Wipe Cleaning Operation, Building 81
S118	Wipe Cleaning Operation, Building 134
S130	Vapor Degreaser

S131 Heat Treat Oven, 14.4 MMbtu/hr, Bldg. 61
S132 In-Use Stationary Prime Engine
S134 Automatic Blast Booth, Bldg 162
S135 Wipe Cleaning Operation, Bldg 123, 124, 162, 163,165
S136 Adhesive Coating Operations (Facility-Wide)
S137 Manual Blast Booth
S138 Feedwater Heater, 12.3 MM BTU/hr
S139 Feedwater Heater, 12.3 MM BTU/hr
S153 Fire Pump Driver Engine
S155 Urethane Casting Machine
S156 Urethane Casting Machine
S157 Fire Pump Driver Engine
S158 Vapor Degreaser
S159 Emergency Generator
S160 Dry Filter Spray Booth
S161 Paint Spray Booth with Dry Filter Bank

Potential Future Activity: None

Exempt Sources:
S122 Groundwater Treatment System, (Reg 1-110.6)
S123 Fixed Roof Storage Tank (Reg 2-1-123.2)
S124 Ammonia Storage Tank (Reg 2-1-123.3.1)
S128 Superheater, 9.8 MMbtu/hr max, Twyman Model 2113-1
S129 Superheater, 7 MMbtu/hr max, Twyman Model 21182 (Reg 2 -1-114.2)
S141 Paint Gun Washer, <50 g/l VOC solvent
S142 Paint Gun Washer, <50 g/l VOC solvent
S143 Paint Gun Washer, <50 g/l VOC solvent
S144 Paint Gun Washer, <50 g/l VOC solvent
S145 Paint Gun Washer, <50 g/l VOC solvent
S146 Paint Gun Washer, <50 g/l VOC solvent
S147 Paint Gun Washer, <50 g/l VOC solvent
S148 Paint Gun Washer, <50 g/l VOC solvent
S149 Paint Gun Washer, <50 g/l VOC solvent
S150 Paint Gun Washer, <50 g/l VOC solvent
S151 Paint Gun Washer, <50 g/l VOC solvent
S154 Steam Boiler (Pickling Process), 5.25 MM BTU/hr
no # 4 Clayton Boilers, 7.3 MMbtu/hr each, Model RG-175-2, Bldg 41, (Regulation 2-1-114.2)

Abatement Devices:
A18 Baghouse for S18
A32 Baghouse for S31
A34 Baghouse for S34
A56 SCR System for S56
A61 Dust Collector for S61

A124 Baghouse for S57
A125 Dust Collector for S59
A126 Ammonia Gas Scrubber for S124
A134 Dust Collector for S134
A135 Carbon Adsorption System for S9
A137 Dust Collector for S137
A158 Carbon Adsorption System for S158

Synthetic Minor Operating Permit Conditions Solvent and Coating Operations:

1. The facility-wide volatile organic compound (VOC) emissions, excluding combustion products, shall not exceed 70,000 pounds (35 tons) in any consecutive 12-month period.

2. The facility-wide emissions of any single hazardous Air pollutant (HAP), excluding combustion products, Shall not exceed 18,000 pounds (9 tons) in any consecutive 12-month period.

3. The facility-wide emissions of all HAP's combined, excluding combustion products, shall not exceed 46,000 pounds (23 tons) in any consecutive 12-month period.

4. Northrop Grumman Corporation shall maintain the following records in a District-approved log:
   a. Records of the date, type, and quantity of each VOC-or HAP-containing material distributed from the storerooms on an event basis, summarized monthly;
   b. Purchase records of the date, type, and quantity of materials containing VOCs or HAPs, which are not distributed from the storerooms (such materials used for special projects), on an event basis, summarized monthly; and
   c. The date, quantity, and type of waste solvent (multiple or single component) collected for offsite recycle or disposal on an event basis, summarized monthly;

   Summaries shall be complete within twenty business days after the end of each month. The log hall be retained for at least five years from the last date of entry and be available for review by the District upon request.

5. Northrop Grumman Corporation shall calculate the monthly and rolling 12-month sums of VOC, each HAP, and total HAP emissions from all coating and solvent usage operations each month.
   a. The calculations shall be based upon the quantities in Part 4(a) and 4(b) and the chemical composition information from Material Safety Data Sheets or other manufacturer content certifications.
   b. If the records regarding the VOC (and/or HAP) content of waste solvent shipments are maintained as in Part 5c, the VOC (and/or HAP) emissions calculated in Part 5(a) may be reduced by the quantity of material collected for recycle or disposal the previous month multiplied by the corresponding VOC (and/or HAP) content of the material.
   c. To adjust VOC emissions as described in Part 5(b), the VOC content of all offsite waste solvent shipments must be measured through a District-approved lab

analysis; likewise, to adjust HAP emissions, the specific HAP content must be measured through a District-approved lab analysis. Analysis is not required for offsite disposal of single component waste or virgin material.

d. Where analysis of the VOC (and/or HAP) content of waste solvent indicates a range of weight percents, rather than an exact percentage, the lowest figure of the range must be used in the adjustment of VOC (and/or HAP) emissions in Part 5(b).

e. The emission factor for VOC's and HAP's shall be one pound of VOC per pound of VOC content and one pound of HAP per pound of HAP content, respectively. If a compound is both a HAP and a VOC, then it shall be included in the emission totals for both. The calculations shall be complete within twenty business days after the end of each month, shall be kept onsite for a period of five years, and shall be made available to District staff upon request.

Combustion Operations:

6. All combustion units shall be fired exclusively on natural gas, except that the S132 In-Use Stationary Prime Engine, S153 Emergency Generator, S157 Fire Pump Driver Engine and the S159 Emergency Generator may be fired with diesel fuel. (basis - NSR, SMOP)

7a. NOx emissions from S4 and S5 shall not exceed 30 ppmv, dry, at 3% O2.

7b. Emissions from S138 and S139 shall not exceed the following limits: NOx: 25 ppmv, dry, at 3% O2 [Cumulative Increase] CO: 50 ppmv, dry, at 3% O2 [BACT]

7c. [Startup condition deleted; initial source test completed 2/7/00]

7d. Northrop Grumman shall perform an annual source test on S5 to demonstrate compliance with Part 7a. The results shall be maintained onsite for 5 years from the date of the test and shall be made available for review by the District upon request.

8. Natural gas usage at the following sources shall not exceed the designated amounts in any consecutive 12-month period or the quantity calculated in Part 15, whichever is less:

Source / Group of Sources	Maximum Natural Gas Usage per consecutive 12-month period
S4	160 million standard cubic feet
S5	833 million standard cubic feet
S56	910 million standard cubic feet
S138, S139 (combined)	90 million standard cubic feet

9. The gas lines to each of the sources S4, S5, S56 and S-138/139 (combined) shall each be equipped with a dedicated, standard natural gas meter to monitor the gas flow to each source. (basis - NSR, SMOP)

10. [Deleted - Application 19631]

11. The boiler, S56, shall not be operated unless the flue-gas recirculation fan is operating. (basis - NSR, SMOP)

12. The facility-wide natural gas usage, excluding usage at the sources with individual limits in Part 9, shall not exceed 546 million standard cubic feet in any consecutive 12-month period.

13. Deleted Application 14969.

14. Deleted Application 14969.

*15. Emergency engines S153, S157, and S159 shall be fired exclusively on diesel fuel having a sulfur content less than 15 ppm by weight. [Basis: Cumulative Increase]

*16a. S153 and S157 shall only be operated to operate a fire pump during fires or for reliability-related activities. Operation for reliability-related activities shall not exceed 50 hours for S153 and 50 hours for S157 in any calendar year. Operation while mitigating emergency conditions is unlimited. [Basis: "Stationary Diesel Engine ATCM" section 93115, title 17, CA Code of Regulations, subsection(e)(2)(A)(3) or (e)(2)(B)(3)]

*16b. "Reliability-related activities" is defined as any of the following:
1. Operation of an emergency engine to test its ability to perform for an emergency use, or
2. Operation of an emergency engine during maintenance of a primary motor.
[Basis: Regulation 9-8-232]

*17. S153 and S157 shall be equipped with either:
a. a non-resettable totalizing meter that measure s and records the hours of operation for the engine
b. a non-resettable fuel usage meter (10.3 gallons of fuel shall be assumed to be equivalent to 1 hour of reliability-related operation)
[Basis: Regulation 9-8-530]

*18. For S153 and S157, the following monthly records shall be maintained in a District-approved log for at least 2 years and shall be made available for District inspection upon request:
a. Total hours of operation
b. Hours of operation under emergency conditions and a description of the nature of each emergency condition
c. Fuel usage
[Basis: Regulations 9-8-530, 1-441]

19. Diesel usage at the S132 In-Use Stationary Prime Engine and the S153 and S157 Fire Pump Engines shall not exceed 40,000 gallons (combined) in any consecutive 12-month period.

20. The following records shall be maintained in a District-approved log:
    a. for S4, S5, S56, S138/S139: monthly throughput of natural gas to each source;
    b. [Deleted - Application 19631]
    c. monthly records of the natural gas usage for the remainder of the facility (excluding usage in Part 20(a));
    d. for S132, S153, S157, and S159: monthly records of diesel deliveries;
    e. Deleted Application 14969.
    f. for S159: hours of operation for the previous month.

    Records shall be retained for at least five years from the last date of entry and shall be made available for review by the District upon request.

21. Northrop Grumman Corporation shall complete the following summaries each month:
    a. the sum of natural gas usage for each source in Part 20(a) for the previous 12 months;
    b. [Deleted - Application 19631]
    c. the sum of facility-wide natural gas usage from Part 20c for the previous 12 months;
    d. the sum of diesel delivered to S132, 153, and 159 for the previous 12 months;
    e. Deleted Application 14969.
    f. the sum of hours of operation for S159 for the previous 12 months.

    The summaries shall be complete within twenty business days after the end of each month, shall be kept onsite for a period of five years from the date of last entry, and shall be made available to District staff upon request.

Particulate Operations:

22. The spent blast material and other residual products from the each of the following sources shall be abated by the corresponding baghouse(s) whenever the booth is operating: (basis - NSR, SMOP)

Source	Abatement
S18	A18
S31	A32
S34	A34
S57	A124
S59	A125
S61	A61

23. The baghouses shall be kept in good working condition. (basis - NSR, SMOP)

24. The particulate emissions at the outlets of the baghouses A18, A32, A34, A124, A125, and A61 shall not exceed 0.02 gr/dscf.

25. [Deleted - Application 1477]

26. The total suspended and dissolved solids in the cooling water processed at the two Cooling Towers shall not exceed 5000 ppmw.

Reporting Requirements:

27. Northrop Grumman shall notify the District within five working days of determining that the facility has exceeded a rolling 12-month limit or any other operational limit.

28. Northrop Grumman shall prepare and submit an annual report to the Enforcement Division of the District. This report shall contain the following information:
    a. the monthly summaries from Part 4(a), (b), and c for the past twelve months;
    b. the calculations of monthly VOC, each HAP, and total HAP emissions from Part 5(a), indicating the VOC and HAP contents of each coating and solvent, for the past twelve months, totalled to show the rolling 12-month sums for each month;
    c. the calculation of the monthly VOC and/or HAP emission reductions from Part 5(b), indicating the VOC and/or HAP content of each offsite shipment, for the past twelve months, totalled to show the rolling 12-month sums for each month;
    d. if any emission reductions were based upon offsite disposal of mixed solvent waste, not including virgin material, a copy of the lab analysis indicating the VOC and/or HAP content of each shipment;
    e. calculations of the net facility-wide VOC, each HAP, and total HAP emissions from non-combustion sources (the quantities in Part 28(b) minus the corresponding quantities in Part 28c) each month for the past twelve months, totaled to show the rolling 12-month sums for each month;
    f. the amount of natural gas consumed each month at each source or group of sources identified in Part 9 for the past 12 months, totalled to show the rolling 12-month sums;
    g. the monthly natural gas usage for the remainder of the facility (as specified in Part 13) for the past 12 months, totaled to show the rolling 12-month sums;
    h. a copy of the source test results performed during the previous 12-month period to measure the NOx emissions from S5;
    i. monthly diesel deliveries to S132, S153, S157, and S159 for the past 12-months, totaled to show the rolling 12-month sums;
    j. Deleted Application 14969.
    k. [Deleted - Application 18907]
    *l. To ensure compliance with part 77a, Northrop Grumman Corporation shall calculate and report the annual emissions of VOC and NOx for each year ending January 31st.
        1. For solvents and coatings, the calculations required in Part 5 for POC from solvents and coatings for the year ending January 31st shall be used.
        3. The calculations shall be based on the following emission factors for the combustion sources:

           Sources 4, 5, 56, 128
           5.5 lb POC/MMscf (based on AP-42)
           35.7 lb NOx/MMscf (based on BAAQMD Regulation 9, Rule 7)

Sources 138, 139
5.5 lb POC/MMscf natural gas (based on AP-42)
41.40 lb NOX/MMscf natural gas (based on 25 ppmv @ 3% O2)

remaining natural gas combustion sources
5.5 lb POC/MMscf (based on AP-42)
100 lb NOx/MMscf (based on AP-42)

S132
0.05 lb POC/gal diesel fuel
(based on AP-42 factor of 0.36 lb/MMbtu x 137,000 btu/gal)
0.60 lb NOX/gal diesel fuel
(based on AP-42 factor of 4.41 lb NOX/MMbtu x 137,000 btu/gal)

S153
0.06 lb POC/hr (based on 0.12 g/hp-hr and 240 hp)
2.22 lb NOX/hr (based on 4.2 g/hp-hr and 240 hp)

S157
0.05 lb POC/hr (based on 0.15 g/hp-hr and 140 hp)
1.30 lb NOX/hr (based on 4.2 g/hp-hr and 140 hp)

S159
0.32 lb POC/hr (based on 0.231 g/hp-hr, 58% control, and 1482 hp)
14.34 lb NOx/hr (based on 4.394 g/hp-hr and 1482 hp)

This report shall be prepared for the consecutive 12-month period ending on January 31 and shall be submitted by April 1, two calendar months from the annual permit renewal date. For part 28(l), the reporting period will start with the issuance date of the authority to construct for Application 14969.

Other Permit Conditions

Solvent and Coating Operations:

*29. The total combined precursor organic (POC) emissions from the six paint spray booths, S8 through S13, shall not exceed 140 lbs/day.

*30. The total combined POC emissions from the six paint spray booths, S8 through S13, shall not exceed 12.8 tons/year.

*31. [Deleted]

*32. The total coating usage at S41 shall not exceed 250 gallons per year. The organic emissions from usage of coating shall not exceed 1,400 pounds per year. [Cumulative Increase]

*33. The total clean-up solvent usage at S41 shall not exceed 500 gallons per year. The organic emissions from usage of clean-up solvent shall not exceed 3,500 pounds per year. [Cumulative Increase]

*34. The owner/operator shall ensure that S41, spray booth, is abated by the dry filter system when S41 is in operation. [Cumulative Increase]

*35. [Deleted - sources removed from service]

*36. [Deleted - sources removed from service]

*37. S63 shall only be used to apply rust preventative coatings.

*38. The total annual usage of rust preventative coatings at S63 shall not exceed 660 gallons.

*39. The total annual usage of cleanup solvent at S63 shall not exceed 20 gallons.

*40. The spray booth filters at S63 shall be kept in good working condition.

*41. Total combined net solvent evaporation shall not exceed 3375 gallons of non-precursor organic compounds and 5270 gallons of POCs in any single year at the following sources: S106, S107, S108, S109, S111, S112, S113, S114, S115, S116, S118, S135

*42. The owner/operator of the S-155 and S-156 urethane elastomer casting machines may be used to combine prepolymers with a curative to form elastomer objects, and methylene chloride or other NPOC compounds may be used to flush the machines provided that the following limits are not exceeded:
S-155: S-155 may not be modified in a way that increases solvent usage or emissions
S-156: 3 gallons (gross) of flushing solvent on any single day; 249 gallons (gross) of flushing solvent in any consecutive 12-month period
[Cumulative Increase, BACT S-156 only]

*43. The owner/operator of S-155 and S-156 shall maintain the following records of flushing solvent usage. These records shall be kept in a District-approved log for at least 5 years and shall be made available to the District upon request.
S-155: monthly gross usage [Regulation 8-4-501]
S-156: daily gross usage, monthly gross usage [Cumulative Increase, BACT - S-156 only]

*44. Northrop Grumman Corporation shall maintain the following records in a District-approved log:
a. for S8 through S13: daily usage of all coatings and cleanup solvent at each;
b. for S41: weekly usage of all coatings and cleanup solvents;
c. [Deleted - sources removed from service]
d. for S63: monthly records of coating and cleanup solvent usage;

e. monthly records of type and net amount of all solvents used at each of the following sources: S106, S107, S108, S109, S111, S112, S113, S114, S115, S116, S118, S135

f. for S125 through S127: the date and quantity of solvent added to any of these sources, the quantity of solvent recovered for disposal or recycling, and, on a quarterly basis, a summary of net solvent usage at each;

g. net solvent usage shall be calculated by subtracting the quantity of solvent removed from a source from the quantity added to the source. Records shall be kept onsite for a period of two years from the date of last entry and shall be made available to District staff upon request.

*45. Cold cleaners S-140, S-143, S-145, S-147, S-149 and S-151 are subject to the requirements of Regulation 8, Rule 16, including the general operating and design requirements of 8-16-303.1, 303.2 and 303.3, and the recordkeeping requirements of 8-16-501, as well as the minimum freeboard ratio requirement (0.75) of 8-16-303.4.1. Water rinse tanks S-142, S-144, S-146, S-148 and S-150 are subject to these same requirements when they contain 1% or more VOC by weight (Regulation 8-16-114), and are exempt from these requirements when they contain less than 1% VOC by weight. [Regulation 8, Rule 16]

*46. Water rinse tanks S-142, S-144, S-146, S-148 and S-150 shall not exceed a VOC concentration (by weight) of 10%. [Cumulative Increase]

*47. Net usage of solvent at each source may not exceed the following limits in any consecutive 12-month period:

S-140	12 gallons
S-141	500 gallons
S-143	500 gallons
S-145	500 gallons
S-147	500 gallons
S-149	500 gallons
S-151	500 gallons

[Cumulative Increase]

*47a. The combined net solvent usage of Bromothane R and Bromothane E at S158 may not exceed 110 gallons in any consecutive 12-month period. [Cumulative Increase, Toxics Risk Screen]

*48. Monthly records of the solvent throughput at cold cleaners S-140, S-143, S-145, S-147, S-149 and S-151 shall be kept in a District-approved log for at least 5 years and shall be made available to the District upon request. [Recordkeeping]

*48a. To demonstrate compliance with part 47a, Northrop Grumman Corporation shall record the total volume of Bromothane R and Bromothane E added to Vapor Degreaser S158 on a monthly basis, and shall also total the past consecutive 12-month periods. The total volume added shall be considered to be the net solvent usage. Northrop Grumman

Corporation shall keep the records in a District-approved log for at least 5 years and shall make the log available to the District upon request.
[Recordkeeping, Toxics Risk Screen, Cumulative Increase]

Combustion Operations:

*49. Deleted April 8, 1997.

*50. Emissions of oxides of nitrogen (NOx) from S56 averaged over any one hour period shall not exceed 12 ppm at 3% oxygen, on a dry basis, whenever the steam flow rate exceeds 225,000 pounds per hour.

*51. The mass emissions of NOx from S56, calculated as NO2, shall not exceed 140 pounds during any consecutive 24-hour period.

*52. The mass emissions of NOx from S56, calculated as NO2, shall not exceed 24 tons during any consecutive 12-month period.

*53. The maximum heat input to S56 shall not exceed 410 MMbtu/hr.

*54. The boiler, S56, shall not operate at the maximum heat input for more than 23 hours in any 24-hour period.

*55. S56 shall be equipped with District-approved continuous emission monitors and recorders for oxygen (O2), carbon monoxide (CO), and oxides of nitrogen (NOx).

*56. Records of natural gas usage and strip charts from the O2, CO, and NOx monitors on S56 shall be maintained for a period of two years and shall be made available to the District personnel upon request.

*57. Calibration of all continuous emission monitoring instruments shall be performed on a daily basis whenever the boiler, S56, is operating.

*58. Operation of the S-132 In-Use Stationary Prime Engine shall be limited to idling at a nominal 40% load during engine tests to ensure that tests may be safely terminated in the event of a power outage, and operation during power outages to terminate tests.
[Regulation 2, Rule 1]

*59. [Deleted - Application 19462]

*60. Fuel sulfur content at S132 shall not exceed 15 ppm by weight. [Stationary Diesel Engine ATCM" section 93115.5(a)(1)]

*61. Effective upon issuance of the Permit to Operate, visible emissions at S132 shall not exceed Ringelmann 0.5, nor result in fallout on adjacent properties in sufficient quantities as to cause a public nuisance per Regulation 1-301.

*62. A District-approved log of diesel fuel usage at S132 shall be maintained on a monthly basis. Records shall be kept for a period of at least 5 years from the date of entry and shall be made readily available to District staff upon request. [Regulation 1-441]

Particulate Operations:

*63. The total amount of abrasive sand used at S31 shall not exceed 657 tons in any consecutive 12-month period. Other blast media shall be used only with the prior approval of the District.

*64. The throughput of abrasive blast media at S57 shall not exceed 4,380 tons in any consecutive 12-month period.

*65. The throughput of Aerolyte plastic media material at S59 shall not exceed 100 tons in any consecutive 12-month period.

*66. The throughput of abrasive blast material at S61 shall not exceed 480 tons in any consecutive 12-month period.

*67. The total number of launch tube closures processed annually at S62 for each operation shall not exceed:

	Maximum number of closures per year
Repair	50
Refurbishment	100
Disassembly	200

Launch tube closures containing asbestos shall not be processed at this facility.

*68. [Deleted]

*69. [Deleted]

*70. The annual release of total particulate emissions at S62 shall not exceed 106 pounds.

*71. The daily release of total particulate emissions at S62 shall not exceed 1.5 pounds.

*72. [Deleted]

*73. Emissions from S62 shall be abated by the water wash system at all times the booth is in operation.

*74. The following records shall be maintained:
a. for S31, S57, S59 and S61: monthly blast media usage in the form of purchase records
b. [Deleted -Application 18907]
c. [Deleted Application 18907]

d. for S62: the total daily throughput of closures, recorded in a District-approved log These records and this log shall be kept onsite for at least five years and shall be made available to the District upon request.

S-9 Coating Operation

*75. The emissions from the S-9 Paint Spray Booth shall be routed under negative pressure to the A-135 Carbon Adsorption System at all times in which S-9 is in operation.

*76. The abatement efficiency of the A-135 Carbon Adsorption System shall be no less than 85% on a mass basis.

S158 Vapor Degreaser

*75a. The VOC emissions from the S158 Vapor Degreaser shall be routed under negative pressure to the A-158 Carbon Adsorption System at all times which S158 is in operation. (Basis: Toxics Risk Screen and Cumulative Increase)

*76a. The VOC abatement efficiency of the A158 Carbon Adsorption System shall be no less than 90% on a mass basis. (Basis: Toxics Risk Screen and Cumulative Increase)

*76b. Deleted.

76c. Deleted.

*76d. At least once per week, Northrop Grumman Corporation shall take measurements of the inlet VOC concentration and outlet VOC concentration of the carbon vessel with a photo-ionization detector (OVA-PID) or other method approved in writing by the APCO. The owner/operator shall change out the spent carbon with fresh carbon upon detection at the outlet of A158 of greater than 10% of the inlet. (Basis: Regulation 2-1-403)

*76e. The owner/operator shall record the monitoring readings specified in part 76c in a District-approved log as they are taken. The monitoring results shall be used to:
i. Calculate the time of predicted breakthrough of VOC emissions.
ii. Establish the frequency of carbon change out necessary to insure compliance with part 76a.
(Basis: Regulation 2-1-403)

*76f. The owner/operator may propose for District review, based upon actual measurements at the site during operation of the source and associated abatement device, that the monitoring frequency be reduced based upon the demonstrated breakthrough rate of the carbon canister. The owner/operator must receive written approval from the District prior to initiating any changes in the monitoring frequency. (Basis: Regulation 2-1-403)

Facility-Wide Conditions

*77a. Notwithstanding any other limits in this permit condition, facility-wide POC and NOx emissions shall be less than 35 ton/yr each in any consecutive 12-month period (beginning 11/1/99). This limit is imposed because POC and NOx offsets were provided by the District in accordance with Regulation 2-2-302 for emission increases in Application 19631, 14969, and 20163. [Regulation 2-2-302]

*77b. Monthly records (beginning 11/1/99) of facility-wide POC and NOx emissions shall be kept in a District-approved log for at least 5 years and shall be made available to the District upon request. [Regulation 2-2-302]

Conditions for S-160 Dry Filter Spray Booth

*78. The owner/operator of S-160 Dry Filter Spray Booth shall not exceed the use of 200 gallons of coating in any consecutive 12-month period. (Basis: Cumulative Increase)

*79. The owner/operator of S-160 Dry Filter Spray Booth shall not exceed the use of 50 gallons of clean up solvents in any consecutive 12-month period. (Basis: Cumulative Increase)

*80. The owner/operator shall use the following coatings, thinners, and clean up solvents at S-160 Dry Filter Spray Booth.

Coatings	Amercoat 235 Off-White Epoxy
	Amercoat 3279 Heat Resistant Coating
	Amercoat 395FD White Epoxy
	Amercoat 90HS Pearl Gray Epoxy
	Daubert Chemical (F&L) Tectyl 891 Class II (P-1)
Rust Preventative	Esgard PL-2 Rust Preventative
	Esgard PL5 Rust Preventative
	Niles Chemical Paint MIL-E-24635
	Gray Enamel Topcoat (N-5120)
	Daubert Chemical (F&L) P-2
	Tectyl 502C Class II
Corrosion Inhibitor	Niles Chemical Paint TTP645B
	Zinc Molybdate Primer Yellow (N-6949)
Thinners and Clean Up Solvents	Acetone
	Amercoat 65
	Methyl Ethyl Ketone
	Mineral Spirits
	Oxsol 100 (PCBTF)

(Basis: Cumulative Increase)

*81. The owner/operator of S-160 may use coatings and clean up solvents other than the materials specified in part 80 and/or usages in excess of those specified in parts 78 and79, provided that the owner/operator can demonstrate that the following are satisfied.

a. The VOC contents of coatings do not exceed 340 grams/liter. (Basis: Cumulative Increase, Regulation 8-19-302 and Regulation 8-43-301.2)

b. The VOC contents of any "Specialty Coating" of Regulation 8-43-302 do not exceed 420 grams/liter. (Basis: Cumulative Increase, Regulation 8-43-302)
c. Total POC emissions from S-160 do not exceed 1026 lb/yr in any consecutive 12-month period. (Basis: Cumulative Increase)
d. Total NPOC emissions from S-160 do not exceed 690 lb/yr in any consecutive 12-month period. (Basis: Cumulative Increase)
e. The use of these materials does not increase toxic emissions above any risk screening trigger level. (Basis: Regulation 2-5, Toxics Risk Screen).

*82. To determine compliance with the above conditions, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above conditions, including, but not necessarily limited to, the following information:
a. Maintain a current list of coatings in use, which provides all of the data necessary to evaluate compliance, including the following information, as applicable:
1. coating, catalyst or reducer used.
2. mix ratio of components used
3. VOC content of coating as applied
4. military specification of the component or area coated
5. VOC content of surface preparation and cleanup solvents, as applied.
b. Maintain monthly records that provide the following information on a daily basis, as applicable:
1. coating and mix ratio of components in the coating used as applied
2. quantity of each coating applied
3. type and amount of solvent used for cleanup and surface preparation.
The owner/operator shall record all records in a District-approved log.
The owner/operator shall retain all records on-site for five years, from the date of entry, and make them available for inspection by District staff upon request. These record-keeping requirements shall not replace the record-keeping requirements contained in any applicable District Regulations. (Basis: Cumulative Increase, Toxic Risk Screen, Regulation 1-441, Regulation 8-19-501, Regulation 8-43-501)

Conditions for S161 Dry Filter Spray Booth

*83. The owner/operator of S161 Dry Filter Spray Booth shall not exceed 880 lb of POC and 242 lb of NPOC of coatings and clean up solvents in any consecutive 12-month period. (Basis: Cumulative Increase)

*84. The owner/operator of S161 may use any coating and clean up solvent provided that the owner/operator can demonstrate that the following are satisfied.
a. The VOC contents of coatings do not exceed 340 grams/liter. (Basis: Cumulative Increase, Regulation 8-19-302 and Regulation 8-43-301.2)
b. The VOC contents of any "Specialty Coating" of Regulation 8-43-302 do not exceed 420 grams/liter. (Basis: Cumulative Increase, Regulation 8-43-302)
c. Total POC emissions from S161 do not exceed 880 lb/yr in any consecutive 12-month period. (Basis: Cumulative Increase)

d. Total NPOC emissions from S161 do not exceed 242 lb/yr in any consecutive 12-month period. (Basis: Cumulative Increase)

e. The use of these materials does not increase toxic emissions above any risk screening trigger level. (Basis: Regulation 2-5, Toxics Risk Screen).

*85. To determine compliance with the above conditions, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above conditions, including, but not necessarily limited to, the following information:

a. Maintain a current list of coatings in use, which provides all of the data necessary to evaluate compliance, including the following information, as applicable:
   1. coating, catalyst or reducer used.
   2. mix ratio of components used
   3. VOC content of coating as applied
   4. military specification of the component or area coated
   5. VOC content of surface preparation and cleanup solvents, as applied.

b. Maintain monthly records that provide the following information on a daily basis, as applicable:
   1. coating and mix ratio of components in the coating used as applied
   2. quantity of each coating applied
   3. type and amount of solvent used for cleanup and surface preparation

The owner/operator shall record all records in a District-approved log.
The owner/operator shall retain all records on-site for five years, from the date of entry, and make them available for inspection by District staff upon request. These record-keeping requirements shall not replace the record-keeping requirements contained in any applicable District Regulations. (basis: Cumulative Increase, Toxic Risk Screen, Regulation 1-441, Regulation 8-19-501, Regulation 8-43-501)

NEW SYNTHETIC MINOR OPERATING PERMIT CONDITION

The new Synthetic Minor Operating Permit Condition will incorporate all of the District requirements as set out in the original Synthetic Minor Operating Condition. In addition, the new condition will add provisions to ensure that the facility will continue to meet the requirements set out in Regulation 2, Rule 6 to avoid designation as a Title V or PSD facility.

STATEMENT OF COMPLIANCE

This facility is in compliance with the applicable requirements of Regulation 2 Rule 6 to obtain a synthetic minor permit. Northrup Grumman Systems Corporation has voluntarily accepted federally enforceable permit conditions including throughput limitations that will keep its potential to emit below the synthetic minor thresholds. Several parts of the existing condition are being deleted as either the sources to which they refer have been archived, or they no longer are applicable to the operation of the affected sources. In addition, minor editorial corrections have been made to be the permit condition to make it consistent with other District permit conditions.

All existing permit conditions will be replaced with the following new synthetic minor permit conditions. Changes are shown in ~~strike-out~~ format for deleted text and underline format for new text.

Condition # 14049

SYNTHETIC MINOR OPERATING PERMIT

Northrop Grumman Systems Corporation
401 East Hendy Avenue
Sunnyvale, CA 94088
Plant #10861

~~Application 13820, 19630, 18907, 19631, 1477, 2446, 19462, 4005, 4390, 4962, 7268, 8683, 9221, 12064~~

PERMITTED SOURCES

~~S3, Paint Spray Booth, Newcomb-Detroit, Rotowash~~
~~S4, Wickes Boiler, (41-18), 24.8 MMBtu/hr, max~~
S5, Wickes Boiler, (41-19), 124 MMBtu/hr, max
S6, Infra Red Oven, Fostoria C4-65J (electric)
S8, Paint Spray Booth, Binks PFA
S9, Paint Spray Booth and Cure Booth
S10, Paint Spray Booth, Binks
S11, Paint Spray Booth, Binks NPB 10-10
S12, Paint Spray Booth, DeVilbiss
S13, Paint Spray Booth, DeVilbiss
~~S15, Cure Room (electric)~~
~~S16, Automatic Painting Booth~~
~~S17, Hand Paint Booth~~
~~S18, Shot Blast~~
S19-S21, Parts Washers, Graymills Model 300
~~S24, Water Wash Spray Booth~~
S25, Paint Spray Booth, Newcomb-McDonald
S29, Paint Bake Oven, Ross Air System, 1.25 MM Btu/hr max
S31, Shot Blast Booth (21-1)
S33, Down Draft Spray Booth, Binks
S34, Sand Blast Operation, Binks #1984
~~S35, Gasoline Dispensing Island~~
S37, Air Stripping Column
S41, Paint Booth, DeVilbiss Model #DR-X-1610-150
S56, Steam Generator, 410 MM Btu/hr, max
S57, Shot Blast Room
S59, Plastic Media Blast Facility, Aerolyte Model SC-2462
S61, Abrasive Blast Booth

S62, Composite Sanding Booth
S63, Rust Preventative Spray Booth
S106, Wipe Cleaning Operation, Building 11
S107, Wipe Cleaning Operation, Building 16
S108, Wipe Cleaning Operation, Building 21
S109, Wipe Cleaning Operation, Building 31
~~S110, Wipe Cleaning Operation, Building 32~~
S111, Wipe Cleaning Operation, Building 33
S112, Wipe Cleaning Operation, Building 41
S113, Wipe Cleaning Operation, Building 44
S114, Wipe Cleaning Operation, Building 55
S115, Wipe Cleaning Operation, Building 61
S116, Wipe Cleaning Operation, Building 81
S118, Wipe Cleaning Operation, Building 134
~~S130, Vapor Degreaser~~
S131, Heat Treat Oven, 14.4 MMBtu/hr, Bldg. 61
S132, Diesel Generator, 250 kW
S134, Automatic Blast Booth, Bldg 162
S135, Wipe Cleaning Operation, Bldg 123, 124, 162, 163,165
S136, Adhesive Coating Operations (Facility-Wide)
~~S137, Manual Blast Booth~~
S138, Feedwater Heater, 12.3 MM BTU/hr
S139, Feedwater Heater, 12.3 MM BTU/hr
S152, Emergency Standby Generator
S153, Fire Pump Driver Engine
S155, Urethane Casting Machine
S156, Urethane Casting Machine
S157, Fire Pump Driver Engine
S158, Vapor Degreaser
S159, Emergency Generator
S160, Dry Filter Spray Booth
S161, Paint Spray Booth with Dry Filter

FUTURE SOURCES ~~Potential Future Activity: None~~

S162, Paint Spray Booth with Dry Filter

EXEMPT SOURCES

S122, Groundwater Treatment System (Reg 1-110.6)
S123, Fixed Roof Storage Tank (Reg 2-1-123.2)
S124, Ammonia Storage Tank (Reg 2-1-123.3.1)
S128, Superheater, 9.8 MMBtu/hr max, Twyman Model 2113-1 (Reg 2-1-114.2)
S129, Superheater, 7 MMBtu/hr max, Twyman Model 21182 (Reg 2-1-114.2)
S141, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S142, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)

S143, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S144, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S145, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S146, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S147, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S148, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S149, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S150, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S151, Paint Gun Washer, <50 g/l VOC solvent (Reg 2-1-118.4)
S154, Steam Boiler (Pickling Process), 5.25 MM BTU/hr (Reg 2-1-114.2)
4 Clayton Boilers, 7.3 MMBtu/hr each, Model RG-175-2, Bldg 41, (Reg 2-1-114.2)

ABATEMENT DEVICES

A1, Diesel Particulate Filter
~~A18, Baghouse for S18~~
A32, Baghouse for S31
A34, Baghouse for S34
A56, SCR System for S56
A61, Dust Collector for S61
A124, Baghouse for S57
A125, Dust Collector for S59
A126, Ammonia Gas Scrubber for S124
A132, Level 3 Catalyzed Diesel Particulate Filter
A134, Dust Collector for S134
A135, Carbon Adsorption System for S9
~~A137, Dust Collector for S137~~
A158, Carbon Adsorption System for S158

This facility, Site # B0861, has a synthetic minor operating permit. This operating permit covers all equipment existing at this facility as of permit issuance. The sources and abatement devices are listed above.

The following conditions establish the federally enforceable permit terms that ensure this plant is classified as a Synthetic Minor Facility under District Regulation 2, Rule 6, Major Facility Review, and ensure it is not subject to the permitting requirements of Title V of the Federal Clean Air Act as amended in 1990 and 40 CFR Part 70. All applications submitted by the applicant and all modifications to the plant's equipment after issuance of the synthetic minor permit must be evaluated to ensure that the facility will not exceed the synthetic minor general limits below, and that sufficient monitoring, recordkeeping, and reporting requirements are imposed to ensure enforceability of the limits.

Any revision to a condition establishing this plant's status as a Synthetic Minor Facility or any new permit term that would limit emissions of a new or modified source for the purpose of maintaining the facility as a synthetic minor must undergo the procedures specified by Rule 2-6,

section 423. The basis for the synthetic minor conditions is an emission limit of 95 tons per year for regulated air pollutants, of 90,000 tons per year for greenhouse gases (on a CO2 equivalent basis), an emission limit for a single hazardous air pollutant of 9 tons per year, and an emission limit for a combination of hazardous air pollutants of 23 tons per year.

Any District conditions that do not establish this facility as a synthetic minor are marked with an asterisk. The facility must comply with all conditions, regardless of asterisks, and must comply with all District requirements for new and modified sources regardless of its status as a synthetic minor.

1. In no event shall the emissions from this site exceed any of the emission limits listed below. The owner/operator shall demonstrate compliance with these emission limits by complying with all emission limits, monitoring procedures, and record keeping requirements identified in Parts 4-16 below. (Basis: Regulation 2-6-423)

NOx	95 tons/year
CO	95 tons/year
POC	95 tons/year
PM10	95 tons/year
SO2	95 tons/year
Any Single HAP	9 tons/year
Combination of HAPs	23 tons/year
CO2e	90,000 tons/year

~~Parts 1 - 28 establish the federally enforceable permit terms that ensure this plant is classified as a Synthetic Minor Facility under District Regulation 2, Rule 6 - Major Facility Review and ensure it is not subject to the permitting requirements of Title V of the Federal Clean Air Act as amended in 1990 and 40 CFR Part 70. Any revision to a condition establishing this plant's status as a Synthetic Minor Facility or any new permit term that would limit emissions of a new or modified source for the purpose of maintaining the facility as a Synthetic Minor must undergo the procedures specified by Rule 2-6, Section 423.~~

~~Parts *29 - *77 are District conditions that do not establish this facility as a Synthetic Minor. Each of these conditions is marked by an asterisk. The facility must comply with all conditions, regardless of asterisks, and must comply with all District requirements for new and modified sources regardless of its status as a Synthetic Minor.~~

~~This operating permit covers all sources existing at the facility as of permit issuance. The sources are listed below:~~

~~Permitted Sources:~~

~~Conditions - Solvent and Coating Operations:~~

~~2. The facility-wide volatile organic compound (VOC) emissions, excluding combustion products, shall not exceed 70,000 pounds (35 tons) in any consecutive 12-month period.~~

~~2. The facility-wide emissions of any single hazardous air pollutant (HAP), excluding combustion products, shall not exceed 18,000 pounds (9 tons) in any consecutive 12-month period.~~

~~3. The facility-wide emissions of all HAP's combined, excluding combustion products, shall not exceed 46,000 pounds (23 tons) in any consecutive 12-month period.~~

2~~4~~. The owner/operator ~~Northrop Grumman Corporation~~ shall maintain the following records in a District-approved log:

a. Records of the date, type, and quantity of each VOC- or HAP-containing material distributed from the storerooms on an event basis, summarized monthly;

b. Purchase records of the date, type, and quantity of materials containing VOCs or HAPs, which are not distributed from the storerooms (such materials used for special projects), on an event basis, summarized monthly; and

c. The date, quantity, and type of waste solvent (multiple or single component) collected for offsite recycle or disposal on an event basis, summarized monthly.

Summaries shall be completed within twenty business days after the end of each month. The log shall be retained for at least five years from the last date of entry and be available for review by the District upon request. (Basis: Cumulative Increase; Regulation 2, Rule 5, and Regulation 2-6-423.2.3)

3~~5~~. The owner/operator ~~Northrop Grumman Corporation~~ shall calculate the monthly and rolling 12-month sums of VOC, each HAP, and total HAP emissions from all coating and solvent usage operations each month.

a. The calculations shall be based upon the quantities reported in Part 2 ~~4(a) and 4(b)~~ above, and the chemical composition information from Material Safety Data Sheets or other manufacturer content certifications.

b. ~~If the records regarding the VOC (and/or HAP) content of waste solvent shipments are maintained as in Part 3(a) 5c,~~ The VOC (and/or HAP) emissions calculated in Part 3(a) ~~5(a)~~ may be reduced by the quantity of material collected for recycle or disposal the previous month multiplied by the corresponding VOC (and/or HAP) content of the material.

c. To adjust VOC emissions as described in Part 3~~5~~(b), the VOC content of all offsite waste solvent shipments must be determined ~~measured~~ through a District-approved lab analysis; likewise, to adjust HAP emissions, the specific HAP content must be determined ~~measured~~ through a District-approved lab analysis. Analysis is not required for offsite disposal of single component waste or virgin material.

d. Where analysis of the VOC (and/or HAP) content of waste solvent indicates a range of weight percents, rather than an exact percentage, the lowest figure of the range shall ~~must~~ be used in the adjustment of VOC (and/or HAP) emissions in Part 3~~5~~(b).

e. The emission factor for VOCs and HAPs shall be one pound of VOC per pound of VOC content and one pound of HAP per pound of HAP content, respectively.

f. If a compound is both a HAP and a VOC, then it shall be included in the emission totals for both.

The calculations shall be complete within twenty business days after the end of each month, shall be kept onsite for a period of five years, and shall be made available to District staff upon request. (Basis: Cumulative Increase; Regulation 2, Rule 5; and Regulation 2-6-423.2.3)

COMBUSTION OPERATIONS:

4~~6~~. All combustion units shall be fired exclusively on natural gas, except that Source ~~the~~ S132, In-Use Stationary Prime Use Generator ~~Backup Diesel Generator~~, ~~the S152 Emergency Diesel and~~ Sources ~~the~~ S153 and S157, Fire Pump Driver Engines, and Source S159, Emergency Standby Diesel Generator may be fired with diesel fuel. (Basis: Regulations 9-7-113, 9-8-331.3 ~~NSR, SMOP)~~

5~~7a~~. NOx emissions from ~~S4 and~~ Source S5 shall not exceed 30 ppmv, dry, at 3% O2 at any firing rate. Upon the effective date for Regulation 9-7-307.6 as specified in Regulation 9-7-308, NOx emissions from Source S5 shall not exceed 5 ppmv, dry at 3% O2, except during startup and shutdown periods as defined in Regulations 9-7-219-220 and complying with Regulation 9-7-115. (Basis: Cumulative Increase; BACT, and Regulations 9-7-115, 9-7-307.6, and 9-7-308)

6~~7b~~. Emissions from Sources S138 and S139 shall not exceed the following limits at any firing rate:

NOx: 25 ppmv, dry, at 3% O2
CO: 50 ppmv, dry, at 3% O2

Upon the effective date for Regulation 9-7-307.3 as specified in Regulation 9-7-308, NOx emissions from Sources S138 or S139 shall not exceed 15 ppmv, dry at 3% O2, except during startup and shutdown periods as defined in Regulations 9-7-219-220 and complying with Regulation 9-7-115. (Basis: Cumulative Increase; BACT, and Regulations 9-7-115, 9-7-307.3, and 9-7-308)

~~7c. [Startup condition delete; initial source test completed 2/7/00]~~

7~~d~~. The owner/operator ~~Northrop Grumman~~ shall perform an annual source test on Source S5 to demonstrate compliance with Part 5~~7a~~ above. The results shall be maintained onsite for five years from the date of the test and shall be made available for review by the District upon request. (Basis: Cumulative Increase; 40 CFR 60 Subpart Db, and Regulations 2-6-423.2.3 and 9-7-506)

8~~7~~. Natural gas usage at the following sources shall not exceed the designated amounts in any consecutive 12-month period ~~or the quantity calculated in Part 15, whichever is less~~:

Source(s)	Maximum Natural Gas Usage Per Consecutive 12-month Period
~~S4~~	~~160 million standard cubic feet~~
S5	833 million standard cubic feet

S56	910 million standard cubic feet
S138/S139 combined	90 million standard cubic feet

(Basis: Regulation 2-6-423.2.3)

9. The gas lines to ~~each of the~~ Sources ~~S4,~~ S5, S56 and S-138/139 (combined) shall each be equipped with a separate dedicated, standard natural gas meter to monitor the gas flow to each source. (Basis: Regulation 2-6-423.2.3 ~~NSR, SMOP)~~

~~10. [Deleted - Application 19631]~~

10~~11~~. Source ~~The boiler,~~ S56, Steam Generator Boiler, shall not be operated unless the flue-gas recirculation fan is operating. (Basis: Regulations 1-207 and 2-6-423.2.3~~NSR, SMOP)~~

11~~12~~. The facility-wide natural gas usage~~, excluding usage at the sources with individual limits in Part 9~~ shall not exceed 1,450 ~~946~~ million standard cubic feet in any consecutive 12-month period. (Basis: Regulation 2-6-423.2.3)

~~13. Deleted Application 14969.~~

~~14. Deleted Application 14969.~~

*12~~15~~. Sources S132, In-Use Stationary Prime Engine, and ~~Emergency engines~~ S153 and S157, Fire Pump Driver Engines, and S159, Emergency Standby Diesel Generator shall be fired exclusively on diesel fuel having a sulfur content less than 0.0015% ~~0.05%~~ by weight. The sulfur content of the fuel oil shall be certified by the fuel oil vendor. (Basis: Title 17, CCR, 93115: CARB ATCM for Stationary Compression-Ignition Engines ~~Cumulative Increase)~~

*13~~16a~~. Sources S153 and S157 shall only be operated to operate ~~a~~ fire pump engines during fires or for reliability-related activities. Operation for reliability-related activities shall not exceed 34~~50~~ hours for S153 and 34~~50~~ hours for S157 in any calendar year. Operation while mitigating emergency conditions is ~~unlimited~~, subject to facility-wide limits on diesel-fuel usage set out in Part 18 below. (Basis: Title 17, CCR, 93115: CARB ATCM for Stationary Compression-Ignition Engines ~~Regulation 9-8-330, Cumulative Increase)~~

*14. Source S159, Emergency Stand-by Diesel Generator, shall only be operated to mitigate emergency conditions or for reliability-related operations. Operation for reliability-related activities shall not exceed 50 hours per year. Operation while mitigating emergency conditions is subject to facility-wide limits on diesel-fuel usage set out in Part 18 below. (Basis: Title 17, CCR, 93115: CARB ATCM for Stationary Compression-Ignition Engines)

15*. Emergency conditions are as defined ~~as any of the following:~~in the CARB ATCM for Stationary Compression-Ignition Engines.

~~a. Loss of regular natural gas supply~~

b. Failure of regular power supply
c. Flood mitigation
d. Sewage overflow mitigation
e. Fire
f. Failure of a primary motor, but only for such time as needed to repair or replace the primary motor

(Basis: Title 17, CCR, 93115: CARB ATCM for Stationary Compression-Ignition Engines)

*16b. Reliability-related activities are is as defined as any of the following: in the CARB ATCM for Stationary Compression-Ignition Engines.

a. Operation of an emergency engine to test its ability to perform for an emergency use, or
b. Operation of an emergency engine during maintenance of a primary motor

[Basis: Title 17, CCR, 93115: CARB ATCM for Stationary Compression-Ignition Engines]

*17. S153 and S157 shall be equipped with either:

a. A non-resettable totalizing meter that measures and records the hours of operation for the engine
b. A non-resettable fuel usage meter (10.3 gallons of fuel shall be assumed to be equivalent to 1 hour of reliability-related operation)

[Basis: Regulation 9-8-530]

*18. For S153 and S157, the following monthly records shall be maintained in a District-approved log for at least 2 years and shall be made available for District inspection upon request:

a. Total hours of operation
b. Hours of operation under emergency conditions and a description of the nature of the emergency condition
c. Fuel usage

(Basis: Regulations 9-8-530, 1-441)

1719. Diesel usage at the S132, In-Use Stationary Prime Engine, and the S153 and S157, Fire Pump Engines, and S159, Emergency Standby Diesel Generator, shall not exceed 40,000 gallons (combined) in any consecutive 12-month period for non-emergency use. [Basis: Regulation 2, Rule 5; Cumulative Increase; and Regulation 2-6-423.2.3]

18. Facility-wide diesel fuel usage for all activities including any emergency use of S153, S157, or S159 shall not exceed 220,000 gallons in any consecutive 12-month period. (Basis: Regulation 2-6-423.2.3)

1920. The following records shall be maintained in a District-approved log.

a. Monthly natural gas throughput to for S4, S5, S56, and S138/S139 on a source-specific basis monthly throughput of natural gas to each source;

b. ~~[Deleted - Application 19631]~~ M~~m~~onthly records of the natural gas usage for the remainder of the facility ~~(excluding usage in Part 20(a))~~;

c. Monthly records of diesel deliveries for S132, S153, S157, and S159~~: monthly records of diesel deliveries~~;

d. Total natural gas usage at: S-5, S-56, and S138/S139 on a rolling 12-month basis;

e. Total diesel fuel usage at: S-132, S-153, S-157, and S159 on a rolling 12-month basis for non-emergency use; ~~Deleted Application 14969.~~

f. Total diesel fuel usage at: S-132, S-153, S-157, and S159 on a rolling 12-month basis for all activities including any emergency use;

g~~f~~. F~~f~~or S159: hours of operation for the previous month.

Records shall be retained for at least five years from the last date of entry and shall be made available for review by the District upon request. [Basis: Regulations 1-402; 1-420; 1-441; 1-544; 2-6-423.2.3, 9-7-503; 9-8-530; Title 17, CCR, 93115: CARB ATCM for Stationary Compression-Ignition Engines]

~~21. Northrop Grumman Corporation shall complete the following summaries each month:~~

~~a. the sum of natural gas usage for each source in Part 20(a) for the previous 12 months;~~

~~b. [Deleted - Application 19631]~~

~~c. the sum of facility-wide natural gas usage from Part 20c for the previous 12 months;~~

~~d. the sum of diesel delivered to S132, S153, and 159 for the previous 12 months;~~

~~e. Deleted Application 14969.~~

~~f. the sum of hours of operation for S159 for the previous 12 months.~~

~~The summaries shall be complete within twenty business days after the end of each month, shall be kept onsite for a period of five years from the date of last entry, and shall be made available to District staff upon request.~~

PARTICULATE OPERATIONS

20~~22~~. The spent blast material and other residual products from the each of the following sources shall be abated by the corresponding baghouse(s) whenever the booth is operating: ~~(basis - NSR, SMOP)~~

Source	Abatement
~~S18~~	~~A18~~
S31	A32
S34	A34
S57	A124
S59	A125
S61	A61

[Basis: Regulation 2-2-301]

21~~23~~. The baghouses shall be kept in good working condition. ~~(basis - NSR, SMOP)~~ [Basis: Regulations 1-207; 2-2-301]

2224. The particulate emissions at the outlets of the baghouses A18, A32, A34, A124, A125, and A61 shall not exceed 0.02 gr/dscf. [Basis: Regulations 1-207; 2-2-301; 40 CFR 63 Subpart MMMM]

~~25. [Deleted - Application 1477]~~

2326. The total suspended and dissolved solids in the cooling water processed at the two Cooling Towers shall not exceed 5000 ppmw. (Basis: Cumulative Increase)

REPORTING REQUIREMENTS

2427. The owner/operator ~~Northrop Grumman~~ shall notify the District within five working days of determining that the facility has exceeded a rolling 12-month limit or any other operational limit. (Basis: Regulations 1-402; 1-441; 1-544)

2528. The owner/operator ~~Northrop Grumman~~ shall prepare and submit an annual report to the Compliance and Enforcement Division of the District. This report shall contain the following information:

a. The monthly summaries from Parts 2~~4~~(a), (b), and c for the past twelve months;
b. The calculations of monthly VOC, each HAP, and total HAP emissions from Part 3~~5~~(a), Indicating the VOC and HAP contents of each coating and solvent, for the past twelve months, totaled to show the rolling 12-month sums for each month;
c. The calculation of the monthly VOC and/or HAP emission reductions from Part 3~~5~~(b), indicating the VOC and/or HAP content of each offsite shipment, for the past twelve months, totaled to show the rolling 12-month sums for each month;
d. If any emission reductions were based upon offsite disposal of mixed solvent waste, not including virgin material, a copy of the lab analysis indicating the VOC and/or HAP content of each shipment;
e. Calculations of the net facility-wide VOC, each HAP, and total HAP emissions from non-combustion sources (the quantities in Part 25~~28~~(b) minus the corresponding quantities in Part 25~~28~~(c) each month for the past twelve months, totaled to show the rolling 12-month sums for each month;
f. The amount of natural gas consumed each month at each source or group of sources identified in Part 8~~9~~ for the past 12 months, totaled to show the rolling 12-month sums;
g. The monthly natural gas usage for the remainder of the facility, defined as the entire facility exclusive of the sources listed in Part 8, ~~(as specified in Part 13)~~ for the past 12 months, totaled to show the rolling 12-month sums;
h. A copy of the source test results performed during the previous 12-month period to measure the NOx emissions from S5;
i. Monthly diesel deliveries to S132, S153, S157, and S159 for the past 12-months, totaled to show the rolling 12-month sums for non-emergency activities and for all activities.
~~j. Deleted Application 14969.~~
~~k. [Deleted - Application 18907]~~

(Basis: Regulations 1-402; 1-420; 1-441; 1-544; and 2-6-423.2.3)

26~~1~~*. To ensure compliance with Part 72~~77a~~, the owner/operator ~~Northrop Grumman Corporation~~ shall calculate and report the annual emissions of VOC and NOx for each year ending January 31st. ~~1.~~ For solvents and coatings, the calculations required in Part 3 for POC from solvents and coatings for the year ending January 31st shall be used. ~~3.~~The calculations shall be based on the following emission factors for the combustion sources:

Sources ~~4,~~ S5, S56, S128
- 5.5 lb POC/MMscf (based on AP-42)
- 35.7 lb NOx/MMscf (based on BAAQMD Regulation 9, Rule 7)

Sources S138, S139
- 5.5 lb POC/MMscf natural gas (based on AP-42)
- 41.40 lb NOX/MMscf natural gas (based on 25 ppmv @ 3% O2)

Remaining Natural Gas Combustion Sources
- 5.5 lb POC/MMscf (based on AP-42)
- 100 lb NOx/MMscf (based on AP-42)

Source S132
- 0.05 lb POC/gal diesel fuel (based on AP-42 factor of 0.36 lb/MM BTU and 137,000 BTU/gal)
- 0.60 lb NOX/gal diesel fuel (based on AP-42 factor of 4.41 lb NOX/MM BTU and ~~based on~~ 137,000 BTU/gal)

Source S153
- 0.06 lb POC/hr (based on 0.12 g/hp-hr and 240 hp)
- 2.22 lb NOX/hr (based on 4.2 g/hp-hr and 240 hp)

Source S157
- 0.05 lb POC/hr (based on 0.15 g/hp-hr and 140 hp)
- 1.30 lb NOX/hr (based on 4.2 g/hp-hr and 140 hp)

Source S159
- 0.32 lb POC/hr (based on 0.231 g/hp-hr, 58% control, and 1482 hp)
- 14.34 lb NOx/hr (based on 4.394 g/hp-hr and 1482 hp)

This report shall be prepared for the consecutive 12-month period ending on January 31 and shall be submitted by April 1, two calendar months after ~~from~~ the annual permit renewal date. ~~For part 28(l), the reporting period will start with the issuance date of the authority to construct for Application 14969.~~ (Basis: Regulations 1-420, 1-441, 2-6-423.2.3)

OTHER PERMIT CONDITIONS

SOLVENT AND COATING OPERATIONS

*27~~29~~. The total combined precursor organic (POC) emissions from the six paint spray booths, S8 through S13, shall not exceed 140 lbs/day. (Basis: Cumulative Increase)

*28~~30~~. The total combined POC emissions from the six paint spray booths, S8 through S13, shall not exceed 12.8 tons/year. (Basis: Cumulative Increase)

~~*31. [Deleted]~~

*2932. The total coating usage at S41 shall not exceed 250 gallons per year. The organic emissions from usage of coating shall not exceed 1,400 pounds per year. (Basis: Cumulative Increase)

*3033. The total clean-up solvent usage at S41 shall not exceed 500 gallons per year. The organic emissions from usage of clean-up solvent shall not exceed 3,500 pounds per year. (Basis: Cumulative Increase)

*3134. The owner/operator shall ensure that S41, spray booth, is abated by the dry filter system when S41 is in operation. (Basis: Regulation 1-207; Cumulative Increase)

~~*35. [Deleted - sources removed from service]~~

~~*36. [Deleted - sources removed from service]~~

*3237. S63 shall only be used to apply rust preventative coatings. (Basis: Regulation 1-207)

*3338. The total annual usage of rust preventative coatings at S63 shall not exceed 660 gallons. (Basis: Cumulative Increase)

*3439. The total annual usage of cleanup solvent at S63 shall not exceed 20 gallons. (Basis: Cumulative Increase)

*3540. The spray booth filters at S63 shall be kept in good working condition. (Basis: Regulation 1-207)

*3641. Total combined net solvent evaporation shall not exceed 3375 gallons of non-precursor organic compounds and 5270 gallons of POCs in any single year at the following sources: S106, S107, S108, S109, S111, S112, S113, S114, S115, S116, S118, and S135. (Basis: Cumulative Increase)

*3742. ~~The owner/operator of the~~ S155 and S156 urethane elastomer casting machines may be used to combine prepolymers with a curative to form elastomer objects, and methylene chloride or other NPOC compounds may be used to flush the machines provided that the following limits are not exceeded:

a. ~~S155:~~ S155 may not be modified in a way that increases solvent usage or emissions.

b. S156 is limited to 3 gallons (gross) of flushing solvent on any single day; 249 gallons (gross) of flushing solvent in any consecutive 12-month period.

(Basis: Cumulative Increase; BACT S156 only)

*3843. The owner/operator ~~owner/operator~~ of S155 and S156 shall maintain the following records of flushing solvent usage. These records shall be kept in a District-approved log for at least 5 years and shall be made available to the District upon request.

a. S155: monthly gross usage ~~[Regulation 8-4-501]~~

b. S156: daily gross usage, monthly gross usage

(Basis: Regulation 8-4-501; Cumulative Increase, BACT S156 only]

*3944. The owner/operator ~~Northrop Grumman Corporation~~ shall maintain the following records in a District-approved log:

a. For S8 through S13: daily usage of all coatings and cleanup solvent at each source;

b. For S41: weekly usage of all coatings and cleanup solvents;

~~c. [Deleted - sources removed from service]~~

cd. For S63: monthly records of coating and cleanup solvent usage;

de. Monthly records of type and net amount of all solvents used at each of the following sources: S106, S107, S108, S109, S111, S112, S113, S114, S115, 116, S118, and S135;

ef. For S125 through S127: the date and quantity of solvent added to any of these sources, the quantity of solvent recovered for disposal or recycling, and, on a quarterly basis, a summary of net solvent usage at each source;

fg. Net solvent usage shall be calculated by subtracting the quantity of solvent removed from a source from the quantity added to the source.

Records shall be kept onsite for a period of two years from the date of last entry and shall be made available to District staff upon request. (Basis: Regulations 2-5, 1-420, 1-441; Cumulative Increase)

*4045. Cold cleaners S140, S143, S145, S147, S149 and S151 are subject to the requirements of Regulation 8, Rule 16, including the general operating and design requirements of 8-16-303.1, 303.2 and 303.3, and the recordkeeping requirements of 8-16-501, as well as the minimum freeboard ratio requirement (0.75) of 8-16-303.4.1. Water rinse tanks S142, S144, S146, S148 and S150 are subject to these same requirements when they contain 1% or more VOC by weight (Regulation 8-16-114), and are exempt from these requirements when they contain less than 1% VOC by weight. (Basis: Regulation 8, Rule 16)

*4146. Water rinse tanks S142, S144, S146, S148 and S150 shall not exceed a VOC concentration (by weight) of 10%. (Basis: Cumulative Increase)

*4247. Net usage of solvent at each source may not exceed the following limits in any consecutive 12-month period:

S-140	12 gallons
S-141	500 gallons
S-143	500 gallons
S-145	500 gallons
S-147	500 gallons
S-149	500 gallons
S-151	500 gallons

(Basis: Cumulative Increase)

*4348. Monthly records of the solvent throughput at cold cleaners S140, S143, S145, S147, S149 and S151 shall be kept in a District-approved log for at least 5 years and shall be

made available to the District upon request. (Basis: Regulations 1-420, 1-441, 8-16-501; Cumulative Increase ~~Recordkeeping~~)

*44~~47a~~. The combined net solvent usage of Bromothane R and Bromothane E at S158 shall ~~may~~ not exceed 110 gallons in any consecutive 12-month period. (Basis: CumulativenIncrease; Regulation 2, Rule 5 ~~Toxics Risk Screen~~)

*45~~48a.~~ To demonstrate compliance with Part 44~~47a~~, the owner/operator ~~Northrop Grumman Corporation~~ shall record the total volume of Bromothane R and Bromothane E added to Vapor Degreaser S158 on a monthly basis, and shall also total the past consecutive 12-month periods. The total volume added shall be considered to be the net solvent usage. The owner/operator ~~Northrop Grumman Corporation~~ shall keep the records in a District-approved log for at least 5 years and shall make the log available to the District upon request. (Basis: Regulations 2-5, 1-420, 1-441; ~~Recordkeeping, Toxics Risk Screen~~, Cumulative Increase)

COMBUSTION OPERATIONS

~~*49. Deleted April 8, 1997.~~

*46~~50~~. Emissions of oxides of nitrogen (NOx) from Steam Generator S56 averaged over any one hour period shall not exceed 12 ppm at 3% oxygen, on a dry basis, whenever the steam flow rate exceeds 225,000 pounds per hour. Upon the effective date for Regulation 9-7-307.6 as specified in Regulation 9-7-308, NOx emissions from Source S56 shall not exceed 5 ppmv, dry at 3% O2, except during startup and shutdown periods as defined in Regulations 9-7-219-220 and complying with Regulation 9-7-115. (Basis: Cumulative Increase; BACT, and Regulations 9-7-115, 9-7-307.6, and 9-7-308)

*47~~51~~. The mass emissions of NOx from S56, calculated as NO2, shall not exceed 140 pounds during any consecutive 24-hour period. (Basis: Cumulative Increase; BACT)

*48~~52~~. The mass emissions of NOx from S56, calculated as NO2, shall not exceed 24 tons during any consecutive 12-month period. (Basis: Cumulative Increase; BACT)

*49~~53~~. The maximum heat input to S56 shall not exceed 410 MM BTU/hr. (Basis: Cumulative Increase; BACT)

*50~~54~~. The boiler, S56, shall not operate at the maximum heat input for more than 23 hours in any 24-hour period. (Basis: Cumulative Increase; BACT)

*51~~55~~. S56 shall be equipped with District-approved continuous emission monitors and recorders for oxygen (O2), carbon monoxide (CO), and oxides of nitrogen (NOx). (Basis: 40 CFR 60 Subpart Db; Regulations 1-520, 1-521)

*5256. Records of natural gas usage and strip charts from the O2, CO, and NOx monitors on S56 shall be maintained for a period of two years and shall be made available to the District personnel upon request. (Basis: Regulation 1-522; District MOP Volume V)

*5357. Calibration of all continuous emission monitoring instruments shall be performed on a daily basis whenever the boiler, S56, is operating. (Basis: District MOP Volume V)

*5458. Operation of the S132 In-Use Stationary Prime Engine shall be limited to idling at a nominal 40% load during engine tests to ensure that tests may be safely terminated in the event of a power outage, and operation during power outages to terminate tests. (Basis: Regulation 2, Rule 1)

~~*59. [Deleted - Application 19462]~~

~~*60. Fuel sulfur content at S132 shall not exceed 15 ppm by weight. [Stationary Diesel Engine ATCM" section 93115.5(a)(1)]~~

*5561. ~~Effective upon issuance of the Permit to Operate,~~ V~~v~~isible emissions at S132 shall not exceed Ringelmann 0.5, nor result in fallout on adjacent properties in sufficient quantities as to cause a public nuisance per Regulation1-301. (Basis: Regulations 1-301; 6-1-305)

~~*62. A District-approved log of diesel fuel usage at S132 shall be maintained on a monthly basis. Records shall be kept for a period of at least 5 years from the date of entry and shall be made readily available to District staff upon request. [Regulation 1-441]~~

PARTICULATE OPERATIONS

*5663. The total amount of abrasive sand used at S31 shall not exceed 657 tons in any consecutive 12-month period. Other blast media shall be used only with the prior approval of the District. (Basis: Cumulative Increase)

*5764. The throughput of abrasive blast media at S57 shall not exceed 4,380 tons in any consecutive 12-month period. (Basis: Cumulative Increase)

*585. The throughput of Aerolyte plastic media material at S59 shall not exceed 100 tons in any consecutive 12-month period. (Basis: Cumulative Increase)

*5966. The throughput of abrasive blast material at S61 shall not exceed 480 tons in any consecutive 12-month period. (Basis: Cumulative Increase)

*6067. The total number of launch tube closures processed annually at S62 for each operation shall not exceed the following closures:

~~Maximum number of closures per year~~	
Repair	50 closures per year
Refurbishment	100 closures per year
Disassembly	200 closures per year

Launch tube closures containing asbestos shall not be processed at this facility. (Basis: Cumulative Increase)

~~*68. [Deleted]~~

~~*69. [Deleted]~~

*6170. The annual release of total particulate emissions at S62 shall not exceed 106 pounds. (Basis: Cumulative Increase)

*6271. The daily release of total particulate emissions at S62 shall not exceed 1.5 pounds. (Basis: Cumulative Increase)

~~*72. [Deleted]~~

*6373. Emissions from S62 shall be abated by the water wash system at all times the booth is in operation. (Basis: Regulation 1-207)

*6474. The following records shall be maintained:

a. for S31, S57, S59 and S61: monthly blast media usage in the form of purchase records

~~b. [Deleted -Application 18907]~~

~~c. [Deleted Application 18907]~~

bd. for S62: the total daily throughput of closures, recorded in a District-approved log

These records and this log shall be kept onsite for at least five years and shall be made available to the District upon request. (Basis: Regulations 1-420, 1-441; Cumulative Increase)

S-9 COATING OPERATION

*6575. The emissions from the S-9 Paint Spray Booth shall be routed under negative pressure to the A-135 Carbon Adsorption System at all times in which S-9 is in operation. (Basis: Regulations 8-19-302, 8-19-313; Cumulative Increase)

*6676. The abatement efficiency of the A-135 Carbon Adsorption System shall be no less than 85% on a mass basis. (Basis: Regulations 8-19-302, 8-19-313; Cumulative Increase)

S158 VAPOR DEGREASER

*6775a. The VOC emissions from the S158 Vapor Degreaser shall be routed under negative pressure to the A-158 Carbon Adsorption System at all times which S158 is in operation. (Basis: Regulation~~s 2-5,~~ 8-16-301; ~~Toxics Risk Screen and~~ Cumulative Increase)

*6876a. The VOC abatement efficiency of the A158 Carbon Adsorption System shall be no less than 90% on a mass basis. (Basis: Regulations 2-5, 8-16-301; Toxics Risk Screen and Cumulative Increase)

*76b. Deleted.

76c. Deleted.

*6976d. At least once per week, the owner/operator Northrop Grumman Corporation shall take measurements of the inlet VOC concentration and outlet VOC concentration of the carbon vessel S158 with a photo-ionization detector (OVA-PID) or other method approved in writing by the APCO. The owner/operator shall change out the spent carbon with fresh carbon upon detection at the outlet of A158 of greater than 10% of the inlet. (Basis: Regulations 1-207, 1-420, 1-441, 2-1-403; Cumulative Increase)

*7076e. The owner/operator shall record the monitoring readings specified in Part 6976c in a District-approved log as they are taken. The monitoring results shall be used to:

ai. Calculate the time of predicted breakthrough of VOC emissions.

bii. Establish the frequency of carbon changeout necessary to insure compliance with Part 6976a.

(Basis: Regulations 1-207, 1-420, 1-441, 2-1-403; Cumulative Increase)

*7176f. The owner/operator may propose for District review, based upon actual measurements at the site during operation of S158 and A158 the source and associated abatement device, that the monitoring frequency be reduced based upon the demonstrated breakthrough rate of the carbon canister. The owner/operator must receive written approval from the District prior to initiating any changes in the monitoring frequency. (Basis: Regulations 1-207, 1-420, 2-1-403)

FACILITY-WIDE CONDITIONS

*7277a. Notwithstanding any other limits in this permit condition, facility-wide POC and NOx emissions shall be less than 35 ton/yr each in any consecutive 12-month period (beginning 11/1/99). This limit is imposed because POC and NOx offsets were provided by the District in accordance with Regulation 2-2-302 for emission increases in Application 19631, 14969, and 20163. (Basis: Regulation 2-2-302)

*7377b. Monthly records (beginning 11/1/99) of facility-wide POC and NOx emissions shall be kept in a District-approved log for at least 5 years and shall be made available to the District upon request. (Basis: Regulations 1-411, 1-420, 2-2-302; and 2-6-423.2)

CONDITIONS FOR S160 DRY FILTER SPRAY BOOTH

*7478. The owner/operator of S160 Dry Filter Spray Booth shall not exceed the use of 200 gallons of coating in any consecutive 12-month period. (Basis: Regulations 8-19-302, 8-19-313; Cumulative Increase)

*75~~79~~. The owner/operator of S160 Dry Filter Spray Booth shall not exceed the use of 50 gallons of clean up solvents in any consecutive 12-month period. (Basis: Regulations 8-19-302, 8-19-313, 8-43-301, 8-43-302; Cumulative Increase)

*76~~80~~. The owner/operator shall use the following coatings, thinners, and clean up solvents at S160 Dry Filter Spray Booth.

Coatings	Amercoat 235 Off-White Epoxy
	Amercoat 3279 Heat Resistant Coating
	Amercoat 395FD White Epoxy
	Amercoat 90HS Pearl Gray Epoxy
	Daubert Chemical (F&L) Tectyl 891 Class II (P-1)
Rust Preventative	Esgard PL-2 Rust Preventative
	Esgard PL5 Rust Preventative
	Niles Chemical Paint MIL-E-24635 Gray Enamel Topcoat (N5120)
	Daubert Chemical (F&L) P-2 Tectyl 502C Class II Corrosion Inhibitor
	Niles Chemical Paint TTP645B Zinc Molybdate Primer Yellow (N-6949)
Thinners and Clean Up Solvents	Acetone
	Amercoat 65
	Methyl Ethyl Ketone
	Mineral Spirits
	Oxsol 1 00 (PCBTF)

(Basis: Regulations 8-19-302, 8-19-313, 8-43-301, 8-43-302; Cumulative Increase)

*77~~81~~. The owner/operator of S160 may use coatings and clean up solvents other than the materials specified in Part 76~~80~~ and/or usages in excess of those specified in Parts 74~~78~~ and 75~~79~~, provided that the owner/operator can demonstrate that the following are satisfied.

a. The VOC contents of coatings do not exceed 340 grams/liter. ~~(Basis: Cumulative increase, (Regulation 8-19-302 and Regulation 8-43-301.2)~~

b. The VOC contents of any "Specialty Coating" of Regulation 8-43-302 do not exceed 420 grams/liter~~. (basis: Cumulative increase, Regulation 8-43-302)~~

c. Total POC emissions from S160 do not exceed 1026 lb/yr in any consecutive 12-month period~~. (basis: Cumulative increase)~~

d. Total NPOC emissions from S160 do not exceed 690 lb/yr in any consecutive 12-month period~~. (basis: Cumulative increase)~~

e. The use of these materials does not increase toxic emissions above any risk screening trigger level

(Basis: Regulations 2-5, 8-19-302, 8-19-313, 8-43-301, 8-43-302; Cumulative Increase ~~Toxics Risk Screen~~)

*78~~82~~. To determine compliance with the above conditions, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above conditions, including, but not necessarily limited to, the following information:

a. Maintain a current list of coatings in use, which provides all of the data necessary to evaluate compliance, including the following information, as applicable:

(i)~~1~~. Coating, catalyst or reducer used;
(ii)~~2~~. Mix ratio of components used;
(iii)~~3~~. VOC content of coating as applied;
(iv)~~4~~. Military specification of the component or area coated;
(v)~~4~~. VOC content of surface preparation and cleanup solvents, as applied.

b. Maintain monthly records that provide the following information on a daily basis, as applicable:
(i)~~1~~. Coating and mix ratio of components in the coating used as applied;
(ii)~~2~~. Quantity of each coating applied;
(iii)~~3~~. Type and amount of solvent used for cleanup and surface preparation.

The owner/operator shall record all records in a District-approved log. The owner/operator shall retain all records on-site for five years, from the date of entry, and make them available for inspection by District staff upon request. These record-keeping requirements shall not replace the record-keeping requirements contained in any applicable District Regulations. (Basis: Regulations 1-420, 1-441, 2-5, 8-19-501, 8-43-501; Cumulative Increase ~~Toxic Risk Screen~~)

CONDITIONS FOR S161 DRY FILTER SPRAY BOOTH

*79~~83~~. The owner/operator of S161 Dry Filter Spray Booth shall not exceed 880 lb of POC and 242 lb of NPOC of coatings and clean up solvents in any consecutive 12-month period. (Basis: Regulations 8-19-302, 8-19-313, 8-43-301, 8-43-302; Cumulative Increase)

*80~~84~~. The owner/operator of S161 may use any coating and clean up solvent provided that the owner/operator can demonstrate that the following are satisfied.

a. The VOC contents of coatings do not exceed 340 grams/liter. ~~(basis: Cumulative Increase, (Regulation 8-19-302 and Regulation 8-43-301.2)~~

b. The VOC contents of any "Specialty Coating" of Regulation 8-43-302 do not exceed 420 grams/liter~~. (basis: Cumulative increase, Regulation 8-43-302)~~

c. Total POC emissions from S161 do not exceed 880 lb/yr in any consecutive 12-month period~~. (basis: Cumulative increase)~~

d. Total NPOC emissions from S161 do not exceed 242 lb/yr in any consecutive 12-month period~~. (basis: Cumulative increase)~~

e. The use of these materials does not increase toxic emissions above any risk screening trigger level.

(Basis: Regulations 2-5, 8-19-302, 8-19-313, 8-43-301, 8-43-302; Cumulative Increase ~~Toxics Risk Screen~~)

*81~~85~~. To determine compliance with the above conditions, the owner/operator shall maintain the following records and provide all of the data necessary to evaluate compliance with the above conditions, including, but not necessarily limited to, the following information:

a. Maintain a current list of coatings in use, which provides all of the data necessary to evaluate compliance, including the following information, as applicable:
(i)~~1~~. Coating, catalyst or reducer used.
(ii)~~2~~. Mix ratio of components used
(iii)~~3~~. VOC content of coating as applied

(iv)~~4~~. Military specification of the component or area coated

(v)~~4~~. VOC content of surface preparation and cleanup solvents, as applied.

b. Maintain monthly records that provide the following information on a daily basis, as applicable:

(i)~~1~~. Coating and mix ratio of components in the coating used as applied

(ii)~~2~~. Quantity of each coating applied

(iii)~~3~~. Type and amount of solvent used for cleanup and surface preparation

The owner/operator shall record all records in a District-approved log. The owner/operator shall retain all records on-site for five years, from the date of entry, and make them available for inspection by District staff upon request. These record-keeping requirements shall not replace the record-keeping requirements contained in any applicable District Regulations. (Basis: Regulations 1-420, 1-441, 2-5, 8-19-501, 8-43-501; Cumulative Increase ~~Toxic Risk Screen)~~

By: Signed by Catherine S. Fortney
Catherine S. Fortney
Air Quality Engineer II

Date: 06/26/2012